

REMARKS/ARGUMENTS

Favorable reconsideration of this application is respectfully requested.

Claims 1, 3-5, 7, 8, 13, and 14 are pending in this application. Claims 7, 13, and 14 are allowed. Claims 1 and 4 were rejected under 35 U.S.C. § 102(b) as anticipated by U.S. patent no. 4,758,927 to Berg. Claim 8 was rejected under 35 U.S.C. § 103(a) as unpatentable over U.S. patent no. 6,122,170 to Hirose et al. (herein "Hirose") in view of U.S. patent no. 6,297,549 B1 to Hiyoshi. Claims 3 and 5 were objected to but were noted as allowable if rewritten in independent form.

Initially, applicants gratefully acknowledge the indication of the allowance of claims 7, 13, and 14, and the indication of allowable subject matter of claims 3 and 5.

With respect to that indication of allowable subject matter of claims 3 and 5, the present response sets forth new claims 15 and 16 corresponding to previously pending claims 3 and 5 rewritten in independent form. Those new claims 15 and 16 are believed to recite subject matter indicated as allowable in the outstanding Office Action and are therefore believed to be allowable.

Applicants also wish to thank Examiners Chu and Baumeister for the interview granted applicant's representative on November 5, 2003. During that interview the outstanding rejections were discussed in detail. Further, during that interview claim amendments were discussed to clarify certain of the claims over the applied art. The present response sets forth certain of the discussed claim amendments; claim 8 differs from as discussed during the interview. During the interview the examiners indicated they would further consider such claim amendments when formally presented in a filed response.

Addressing now the rejection of claims 1 and 4 under 35 U.S.C. § 102(b) as anticipated by Berg, that rejection is traversed by the present response.

Independent claim 1 is amended by the present response to clarify a feature recited therein, and to specifically clarify the structure of the mounting frame relative to the external heat sink. Specifically, claim 1 now specifically recites that the mounting frame is mounted for *directly* contacting the external heat sink. Such a feature is shown as a non-limiting example in Figure 2 in the present specification in which the mounting frame 13a, 13b directly contacts the heat sink 11. Such feature is believed to clearly distinguish over the applied art to Berg. In Berg, elements 34 and 42 are relied upon to correspond to the first and second metal plates of the mounting frame. However, it is clear in Berg that those elements 34, 42 do not directly contact any heat sink.

Applicants also note that the Office Action appears to indicate that one basis for maintaining the rejection was that the claims did not clearly recite a direct contact between the mounting frame and the heat sink.¹

In such ways, independent claim 1 is believed to distinguish over Berg. Also, claim 4 is dependent on claim 1 and thus includes all the limitations of claim 1. Therefore, claim 4 is allowable for the same reasons as claim 1.

Addressing now the rejection of Claim 8 under 35 U.S.C. 103(a) as unpatentable over Hirose in view of Hiyoshi, that rejection is traversed by the present response.

The Office Action states with respect to the above-noted rejection:

Hirose states in column 8, lines 61-65 that the metal layer 2 ... and conductive layer 8 in case 10 are of the same material, for example, copper, the metal layer 2 at the fixing portion can be formed simultaneously with the conductive layer 8 of the current controlling unit. [Thus], the metal layer 2 is a portion of the conductive layer 8. Therefore, the metal layer 2 is a portion of a conductive pattern by an ordinary-skilled artisan.²

¹ Office Action of October 8, 2003, page 6, lines 9-11 of prenumbered paragraph 8.

² Office Action of October 8, 2003, page 7, lines 3-7.

Applicants respectfully traverse the above-noted position in the Office Action. More specifically, applicants note that even though the metal layer 2 and the conductive layer 8 are of the same material and are formed simultaneously, it cannot be a reason for the metal layer 2 to be considered a portion of the conductive layer 8. Hirose states at column 6, lines 47-51, that “the conductive layer 8 [is] for the current control circuit in case 10 ... [and the] metal layer 2 ... is a buffer layer for the clamping stress at the fixing portion”. Thus, applicants submit that it is clear that the metal layer 2 and the conductive layer 8 play different roles. Also, the metal layer 2 and the conductive layer 8 are physically separated from each other in reference to Figure 16B and its top view, Figure 16A. Therefore, applicants submit it is clear that the metal layer 2 and the conductive layer 8 are of different materials and that the indication in the Office Action that the metal layer 2 is a portion of the conductive layer 8 is improper.

Moreover, applicants submit that what Hirose recites in the above column 8, lines 61-65, is that even though the metal layer 2 and the conductive layer 8 are of different materials, they can be formed simultaneously with the same material. Thus, applicants again submit that the limitation that “the flange presses the periphery of the first conductive pattern on which a semiconductor element is mounted toward the external heat sink with an insulated material between the flange and the first conductive pattern” as recited in claim 8 is not disclosed or suggested in Hirose.

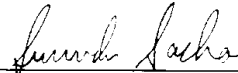
Thus, claim 8 is also believed to be allowable.

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Reply to Office Action of October 8, 2003

As no other issues are pending in this application, it is respectfully submitted that the present application is now in condition for allowance, and it is hereby respectfully requested that this case be passed to issue.

Respectfully submitted,

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